

PH-8

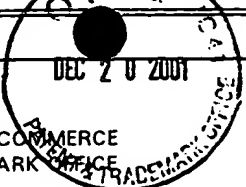

Sheet 1 of 1							
FORM PTO 1449 (modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary) Date Submitted to PTO: October 10, 2002				ATTY DOCKET NO. 2001_0580A		SERIAL NO. 09/853,939	
APPLICANT Hiroshi YANAGAWA et al.				FILING DATE May 11, 2001		GROUP 1653	
U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF
<div style="position: relative; height: 100px;"> <div style="position: absolute; top: 0; left: 0; width: 100%; height: 100%; border: 1px solid black; border-radius: 50%; text-align: center; font-size: 10px;"> OIPE Rm OCT 10 2002 PATENT & TRADEMARK OFFICE </div> </div>	AA	5,534,223	7/1996	Boquet et al.	422	61	
	AB	5,362,644	11/1994	Boquet et al.	435	252.3 RECEIVED	
	AC					OCT 11 2002	
	AD					TECH CENTER 1600/2900	
	AE						
	AF						
	AG						
	AH						
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSL ATION YES NO
Rm	AJ	407,259,A1	1/1991	EP		Corresponds to Ref AA, AB	
Rm	AK	94/20636	9/1994	WO			
	AL						
	AM						
	AN						
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)							
Rm	AO	Burbach et al: "Cloning of the AH-receptor cDNA reveals a distinctive ligand-activated transcription factor" Proceedings of the National Academy of Sciences of USA, National Academy of Science. Washington, US, vol. 17, no. 89, September 1992, pages 8185-8189, XP001069093. ISSN: 0027-8424					
Rm	AP	Hellinga et al: "Protein engineering and the development of generic biosensors" Trends in Biotechnology, Elsevier Publications, Cambridge, GB, vol. 16, no. 4, April 1998, pages 183-189, XP004112305. ISSN: 0167-7799					
Rm	AQ	Baird et al: "Circular permutation and receptor insertion within green fluorescent proteins" Proceedings of the National Academy of Sciences of USA, National Academy of Science. Washington, US, vol. 96, no. 20, September 1999, pages 11241-11246, XP002187230. ISSN: 0027-8424					
EXAMINER				DATE CONSIDERED			
RITA MITRA				10/31/03			

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Sheet 1 of 4		FORM PTO 1449 (modified)		ATTY DOCKET NO. 2001-0580A		SERIAL NO. 09/853,939	
U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE				APPLICANT Hiroshi YANAGAWA et al.			
LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)				FILING DATE May 11, 2001		GROUP	
Date Submitted to PTO: December 20, 2001							
U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						
	AC						
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	AD						
	AE						
	AF						
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)							
Rm	AG	Brennan et al., "A molecular sensor system based on genetically engineered alkaline phosphatase", Proc. Natl. Acad. Sci. USA, Vol. 92, pp. 5783-5787 (1995).					
Rm	AH	Doi et al., "Insertion of foreign random sequences of 120 amino acid residues into an active enzyme", FEBS Letters, Vol. 402, pp. 177-180 (1997)					
Rm	AI	Abedi et al., "Green fluorescent protein as a scaffold for intracellular presentation of peptides", Nucleic Acids Research, Vol. 26, No. 2 pp. 623-630 (1998)					
Rm	AJ	Adams et al., "Fluorescence ratio imaging of cyclic AMP in single cells", Nature, Vol 349, pp. 694-697 (1991).					
Rm	AK	Marvin et al., "The rational design of allosteric interactions in a monomeric protein and its applications to the construction of biosensors", Proc. Natl. Sci. USA, Vol. 94, pp. 4366-4371 (1997)					
Rm	AL	Miyawaki et al. "Fluorescent indicators for Ca ²⁺ based on green fluorescent proteins and calmodulin", Nature, Vol. 388, pp. 882-887 (1997)					
Rm	AM	Romoser et al., "Detection of Living Cells of Ca ²⁺ -dependent Changes in the Fluorescence Emission of an Indicator Composed of Two Green Fluorescent Protein Variants Linked by a Calmodulin-binding Sequence", The Journal of Biological Chemistry, Vol. 272, No. 20, pp. 13270-13274 (1997)					
Rm	AN	Botstein et al., "Strategies and Applications of in Vitro Mutagenesis", Science, Vol. 229, No. 4719, pp. 1193-1201 (1985)					
EXAMINER RITA MITRA				DATE CONSIDERED 10/31/03			

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

			
Sheet 2 of 4 FORM PTO 1449 (modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary) Date Submitted to PTO: December 20, 2001		ATTY DOCKET NO. 2001-0580A	SERIAL NO. 09/853,939
		APPLICANT Hiroshi YANAGAWA et al.	
		FILING DATE May 11, 2001	GROUP
U.S. PATENT DOCUMENTS			
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE
	AA		
	AB		
	AC		
FOREIGN PATENT DOCUMENTS			
		DOCUMENT NUMBER	DATE
	AD		
	AE		
	AF		
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)			
Rm	AG	Leung et al., "A Method For Random Mutagenesis Of A Defined DNA Segment Using A Modified Polymerase Chain Reaction", Technique, Vol. 1, No. 1 pp. 11-15 (1989)	
Rm	AH	Zhou et al., "In Vitro evolution of thermodynamically stable turns", Nature Structural Biology, Vol. 3, No. 5, pp 446-451 (1996)	
Rh	AI	Axe et al., "Active barnase variants with completely random hydrophobic cores", Proc. Natl. Acad. Sci. USA, Vol. 93, pp. 5590-5594 (1996)	
Rh	AJ	Stemmer, "Rapid evolution of a protein <i>in vitro</i> by DNA shuffling", Nature, Vol.370, pp. 389-391 (1994)	
Rh	AK	Birge, "Protein-Based Computers", Scientific American", pp. 66-71 (1995)	
Rm	AL	Itaya et al., "A neomycin resistance gene cassette selectable in a single copy state in the <i>Bacillus subtilis</i> chromosome", Nucleic Acids Research, Vol. 17, pp. 4410 (1989)	
Rm	AM	Prijambada et al., "Solubility of artificial proteins with random sequences" FEBS Letters, Vol. 382, pp. 21-25, (1996)	
Rm	AN	Strynadka et al., "A potent new mode of β -lactamase inhibition revealed by the 1.7 Å X-ray crystallographic structure of the TEM-1-BLIP complex", Nature Structural Biology, Vol. 3. No. 3, pp. 290-297 (1996)	
EXAMINER RITA MITRA		DATE CONSIDERED 10/31/03	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)
(Use several sheets if necessary)

Date Submitted to PTO: December 20, 2001

ATTY DOCKET N .
2001-0580ASERIAL NO.
09/853,939APPLICANT
Hiroshi YANAGAWA et al.FILING DATE
May 11, 2001

GROUP

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						
	AC						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	AD						
	AE						
	AF						

OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

Rm	AG	Barany, "Single-Stranded hexameric linkers: a system for in-phase insertion mutagenesis and protein engineering", Gene, Vol. 37, pp. 111-123 (1985)
Rm	AH	Cramer et al., "Improved Green Fluorescent Protein by Molecular Evolution Using DNA Shuffling", Nature Biotechnology, Vol. 14, pp. 315-319 (1996)
Rm	AI	Doran et al., "Isolation and Characterization of a β -Lactamase-Inhibitory Protein from <i>Streptomyces clavuligerus</i> and Cloning and Analysis of Corresponding Gene", Journal of Bacteriology, Vol. 172, No. 9 pp. 4909-4918 (1990)
Rm	AJ	Guzman et al., "Tight Regulation, Modulation, and High-Level Expression by Vectors Containing the Arabinose P _{BAD} Promoter", Journal of Bacteriology, Vol. 177, No. 14, pp. 4121-4130 (1995)
Rm	AK	Buchholz et al., "Improved properties of FLP recombinase evolved by cycling mutagenesis", Nature Biotechnology, Vol. 16, pp. 657-662 (1998)
Rm	AL	Chang et al., "Nucleotide sequence of the alkaline phosphatase gene of <i>Escherichia coli</i> ", Gene, Vol. 44, pp. 121-125 (1986)
Rm	AM	Dolwick et al., "In vitro analysis of Ah receptor domains involved in ligand-activated DNA recognition", Proc. Natl. Acad. Sci. USA, Vol. 90, pp. 8566-8570 (1993)
Rm	AN	Benito et al., " β -Galactosidase Enzymatic Activity as a Molecular Probe to Detect Specific Antibodies", The Journal of Biological Chemistry, Vol. 271, No. 35, pp. 21251-21256 (1996)

EXAMINER

RITA MITRA

DATE CONSIDERED

10/31/03

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)
(Use several sheets if necessary)

Date Submitted to PTO: December 20, 2001

ATTY D CKET NO.
2001-0580ASERIAL N .
09/853,939APPLICANT
Hiroshi YANAGAWA et al.FILING DATE
May 11, 2001

GROUP

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
<i>Rh</i>	AA						
<i>Rh</i>	AB						
<i>Rh</i>	AC						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO	
<i>Rh</i>	AD	99/24617	5/20/99	WO	_____	_____		
<i>Rh</i>	AE	00/71565	11/30/00	WO	_____	_____		
	AF							

OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

<i>Rh</i>	AG	Siegel et al., "A Genetically Encoded Optical Probe of Membrane Voltage", Neuron, Vol. 19, pp. 735-741 (1997)
<i>Rh</i>	AH	Feliu et al., "Engineering of solvent-exposed loops in <i>Escherichia coli</i> β -galactosidase", FEBS Letters, Vol. 434, pp. 23-27 (1998)
<i>Rh</i>	AI	Betton et al., "Creating a bifunctional protein by insertion of β -lactamase into the maltodextrin-binding protein", Nature Biotechnology, Vol. 15, pp. 1276-1279 (1997)
	AJ	
	AK	
	AL	
	AM	
	AN	

EXAMINER

RITA MITRA

DATE CONSIDERED

10/31/03